WIN PROJECT

FACILITY MONITORING SYSTEM REPORT

July 2000 – March 2003

Women and Infant Health (WIN) Project

JSI

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The Women and Infant Health Project (WIN) is implemented by John Snow, Inc.
in close collaboration with the Ministry of Health of the Russian Federation with partners
EngenderHealth, Johns Hopkins University Center for Communication Programs,
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The Women and Infant Health (WIN) Project promotes use of evidence-based medical practice. Since the end of 1999 the project has been training providers of women's health care in three Russian cities: Veliky Novgorod (Novgorod the Great) in the west and Perm and Berezniki, in Perm Oblast in the Ural Mountains. The following report discusses the effects of the project on a selected set of key project indicators that are reported quarterly in a routine monitoring system set up by the project in WIN's participating facilities.

A. Background

The aim of the WIN Project, sponsored by the US Agency for International Development, is to improve the health of women and infants in several regions of Russia. The project is working to improve the quality of maternal and newborn services, increase access to high-quality reproductive health services, and increase the demand for these services among the population.

The project interventions consist of clinical and counseling training for health providers at all levels, community-based and facility-based information, education and communication strategies for both families and providers, and advocacy and policy promotion. The interventions are guided by the following principles:

- Use of evidence-based medicine to enhance clinical practice
- Use of quality assurance methods involving both providers and clients in provision of quality services
- Promotion of a client-oriented focus
- Continuity and consistency in client-provider communications and across service levels

Specifically, the focus of WIN interventions is on maternal and newborn health and nutrition, including promotion of exclusive breastfeeding, family planning services for postpartum and post-abortion clients, protection against domestic violence, essential care of the newborn, and family-centered maternity care as a component of antenatal, delivery and postpartum care.

The integrated training for providers in evidence-based practices and client-centered care is expected to reduce unnecessary medical intervention during pre-natal, delivery and neonatal care, and improve postnatal and post-abortion contraceptive counseling. Another component of the project's work is production of appropriate health messages and materials to inform and educate the population in the three target cities, and for use in participating facilities. The ultimate aim is to institute evidence-based medical practices more widely to improve the effectiveness and 'family-friendliness' of maternal and infant health services delivered by the Russian health care system.

B. Indicators of Family-Centered Maternity Care (FCMC)

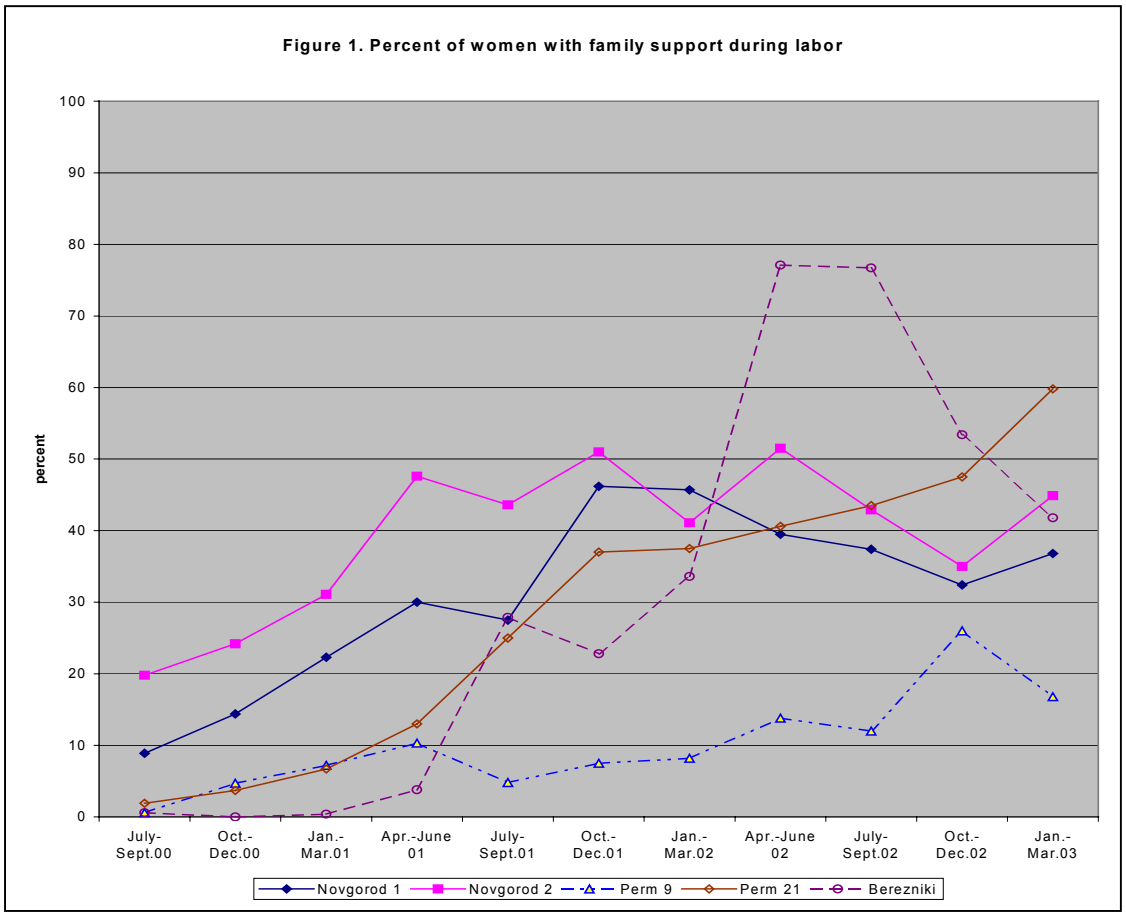
Family support during labor

WHAT this indicator measures:

- the percent of maternity clients who are reported to have a close family member with them during labor and/or delivery

WHY is it important?

This indicator signifies emotional and psychological support during labor and birth. It should reflect changes in practices within maternity hospitals that foster better health outcomes for mothers and babies.



Evidence from controlled trials[1] *shows that support during labor reduces likelihood of:*

- use of medication for pain relief
- need for surgical intervention (episiotomy) during vaginal delivery
- 5 minute Apgar score of baby below 7. (Apgar is an immediate assessment of the physical well-being of the newborn, and is a predictor of outcome. The score ranges from 0 to 10, which is the best score.)[2]
- need for cesarean delivery and perineal trauma
- difficulty in mothering and early cessation of breastfeeding

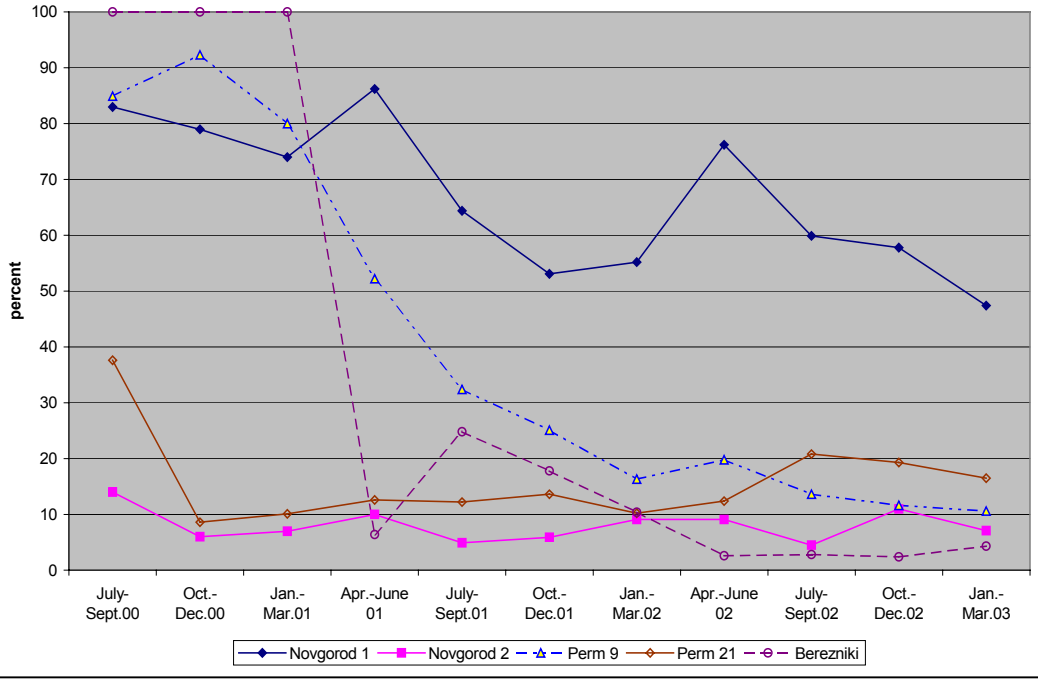
WHAT the data show:
Initial very low levels of support from a close person during labor moved steadily upward in every participating maternity hospital during the first 8 quarters, as shown by the data displayed in Figure 1 (data in Table 1, Annex). However, some drop-off is noticeable in Novgorod after quarter 8. Both maternities in Perm are still making slow but steady progress. Berezniki's 10th and 11th quarter results are a cause for concern, and should be followed up with the facility administration to determine the reason for the steep decline in the proportion of women with family support during labor and delivery. This practice appears to be particulary difficult for facilities to implement and maintain.

Women given pain medication during labor/delivery

WHAT this indicator measures:
- the proportion of women who are given any pharmacological methods of pain relief, including analgesics

WHY is it important?
A change in the indicator will signify a change in a maternity hospital practice that can have adverse consequences for mother or infant. A reduction in the use of pain medications should lead to better health outcomes for mothers and babies.

Figure 2. Percent of women given pain medication during labor



Evidence from controlled trials shows that management of pain with sedatives, tranquilizers, and blocks during labor and delivery is unlikely to be beneficial. These and other forms of pain relief medication have been shown to:
- depress the respiratory system of the newborn and increase hypothermia
- result in an increase in instrument and operative delivery

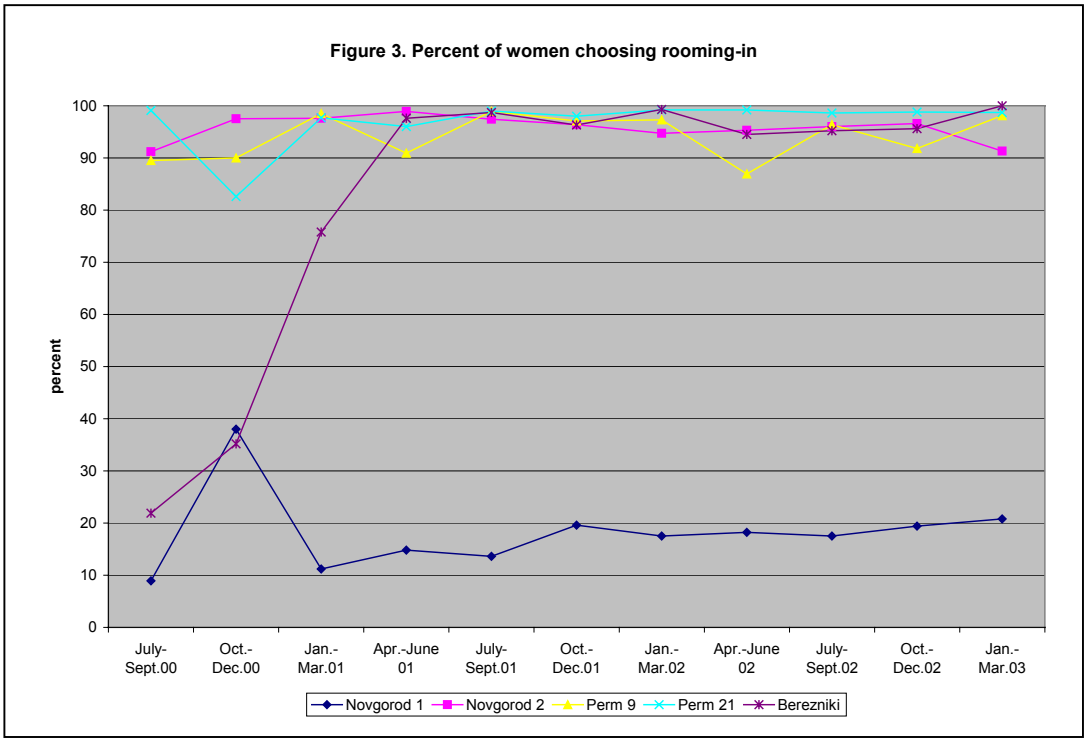
- increase risk if general anesthesia is required for delivery (medication causes delayed stomach emptying)
- cause maternal drowsiness and lack of immediate maternal-infant contact

Evidence from clinical trials suggests, on the contrary, that non-pharmacological techniques of pain relief are likely to be beneficial. These include maternal movement and position change during labor, touch and massage, attention focusing and distraction.

WHAT the data show:
The data displayed in Figure 2 above (and found in Table 2, Annex) show that practices of medication for pain relief vary quite widely across participating facilities. Nevertheless, in all maternities, the level of women receiving pain medication has decreased over the 10 quarters.

Women choosing rooming-in

WHAT this indicator measures:
- the proportion of women who are reported by maternities to have their babies in their rooms day and night



WHY is it important?
A change in the indicator will signify a change in practice (housing infants in central nurseries) that can have adverse consequences for mother or infant. An increase in 'rooming-in' should foster better health outcomes for mothers and babies.

Evidence from controlled trials shows that restriction of mother-infant contact and routine nursery care for babies in hospital is likely to be harmful in the following ways:

- reduced maternal affectionate behavior and more frequent feelings of incompetence and lack of self-confidence observed in mothers whose contact with their infants was restricted
- among first-time mothers from disadvantaged backgrounds, an increase in the subsequent risk of child abuse and neglect was observed
- earlier discontinuation of breastfeeding occurred

Evidence from clinical trials suggests, on the contrary, that rooming-in is likely to be beneficial. Effects include lower rates of infection than for infants kept in central hospital nurseries, where the problem of cross-infection occurs.

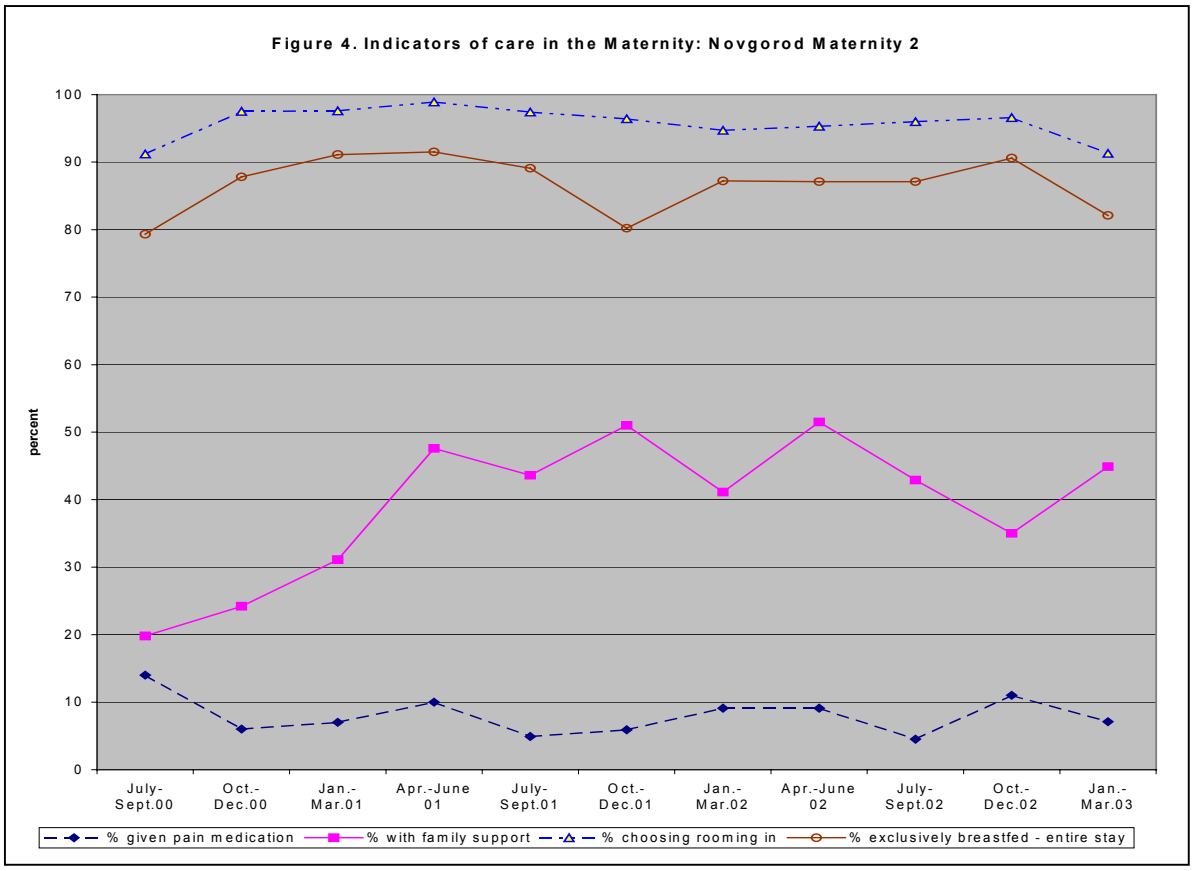
Hospital policies can affect breastfeeding patterns by fostering feelings of self-confidence among new mothers, as well as ensuring that mothers and babies are together day and night, reducing the likelihood of supplementary bottle feeds that can undermine the establishment and continuation of exclusive breastfeeding.

WHAT the data show:
Rooming in is a practice that can change very quickly, once the facility has made the necessary arrangements. Once established, more than 90% of the women are reported to choose this option in maternities where it is offered. The data displayed in Figure 3 (and found in Table 3, Annex) demonstrate the rapid change over the first five quarters made in Berezniki, the last city to receive training in breastfeeding, baby-friendly hospital initiative and family-centered maternity care. This rapid change is sustained even now.

The data also demonstrate that Maternity Hospital 1 in Novgorod, which at first made an attempt to allow rooming-in, but later retracted its efforts, lags far behind the other hospitals, which have actively and enthusiastically accepted the evidence and changed to this new practice. Rooming-in appears to be one of the most popular changes promoted by WIN among new mothers.

Figure 4 below illustrates more closely the WIN indicator trends at one participating maternity hospital, Maternity Number 2 in Novgorod. It shows that family support during labor – the proportion of women with a support person present – doubled since the first quarter, but a drop-off in quarters 8 and 9 is evident from the graph. As we might expect, the reverse is true for use of pain medication during labor: levels have fallen dramatically since these reports were first made. These two trends are likely to be related: support during labor has been shown elsewhere to decrease the need for pharmacological pain relief. Their relationship may partially explain the increase in pain medications provided to women in quarter 10.

The data in this figure also show that the percent of women choosing rooming-in in Maternity 2 in Novgorod has risen to close to 100%, and infants exclusively breastfed for their entire hospital stay has increased, even over the high level reported in the first quarter report. Nearly 90% of newborns are reportedly exclusively breastfed while in hospital, a level that has been sustained (apart from one deviation in quarter 6) since the second quarter of monitoring.



C. Indicators of Breastfeeding Practices

Newborns with jaundice

WHAT this indicator measures:

- the proportion of newborns that show signs of jaundice while in hospital

Data for this indicator is routinely recorded in maternity hospitals and reported (data in Table 4, Annex).

WHY is it important?

Tracking this indicator is important for two reasons:

- Current Russian practice, contrary to evidence-based practice in other industrialized countries, is to diagnose a problem of jaundice more frequently (using a lower threshold for bilirubin levels in blood) and to treat with intravenous medications (rather than light therapy).
- Supplementing the mother's breast milk with water is also a common practice in Russian hospitals, thought to reduce the likelihood of developing jaundice or as a treatment when it occurs.

WHAT the data show:

The evidence from published studies shows that physiologic jaundice of the newborn mostly likely develops due to inadequate intake of milk and calories, and results from poor management of breastfeeding, expressed largely through insufficient frequency of

breastfeeding[3]. Jaundice is low when frequent exclusive breastfeeding is practiced. The indicator signifies a change in practices that promote exclusive breastfeeding, and are beneficial to the newborn, or continuation of those potentially harmful (supplementation with water and over-prescribing of medication).

Exclusive breastfeedng among newborns throughout hospital stay

Exclusive breastfeeding among 0-3 month olds and 0-5 month olds (children's polyclinics)

WHAT these indicators measure:

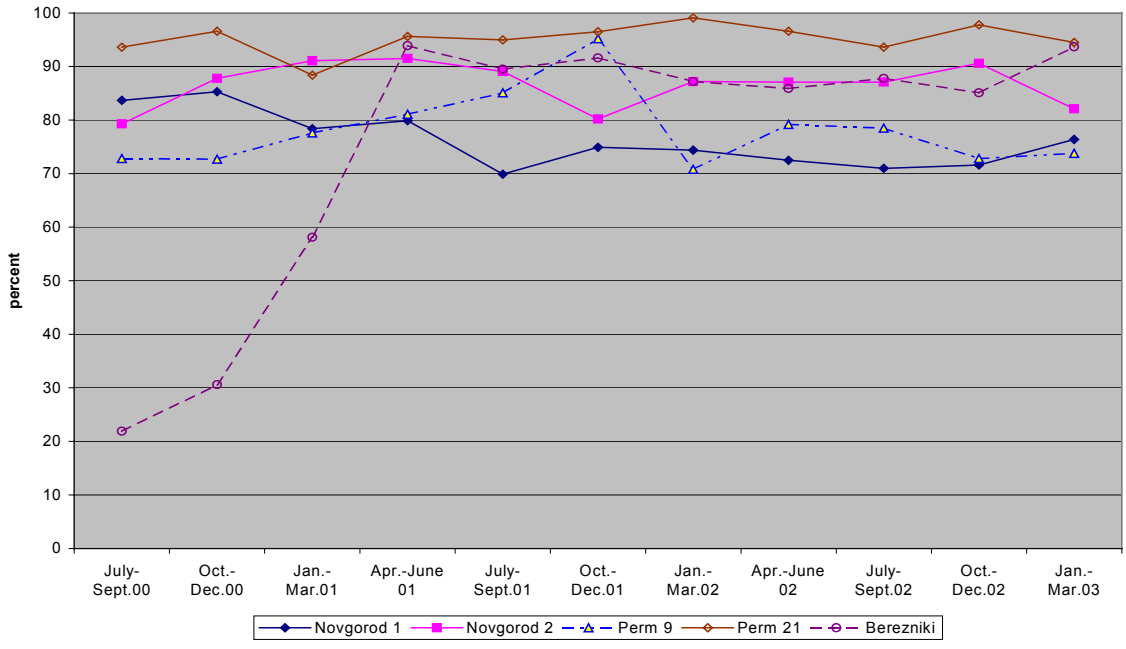
- the percent of newborns exclusively breastfed – with no supplementation – during hospital stay

This indicator is measured in maternity hospitals and data are reported by hospital staff (Tables 5 Annex). In children's polyclinics feeding practices of children are routinely recorded during well-child visits. We measured the proportion of all children less than 4 months of age and less than 6 months of age who were reported to be exclusively breastfed at the time of their clinic visit (given nothing except breast milk).

WHY is it important?

The evidence: Exclusive breastfeeding up to 6 months is now well accepted as important for both mother and infant[4].

Figre 5. Percent of newborns exclusively breastfed throughout hospital stay



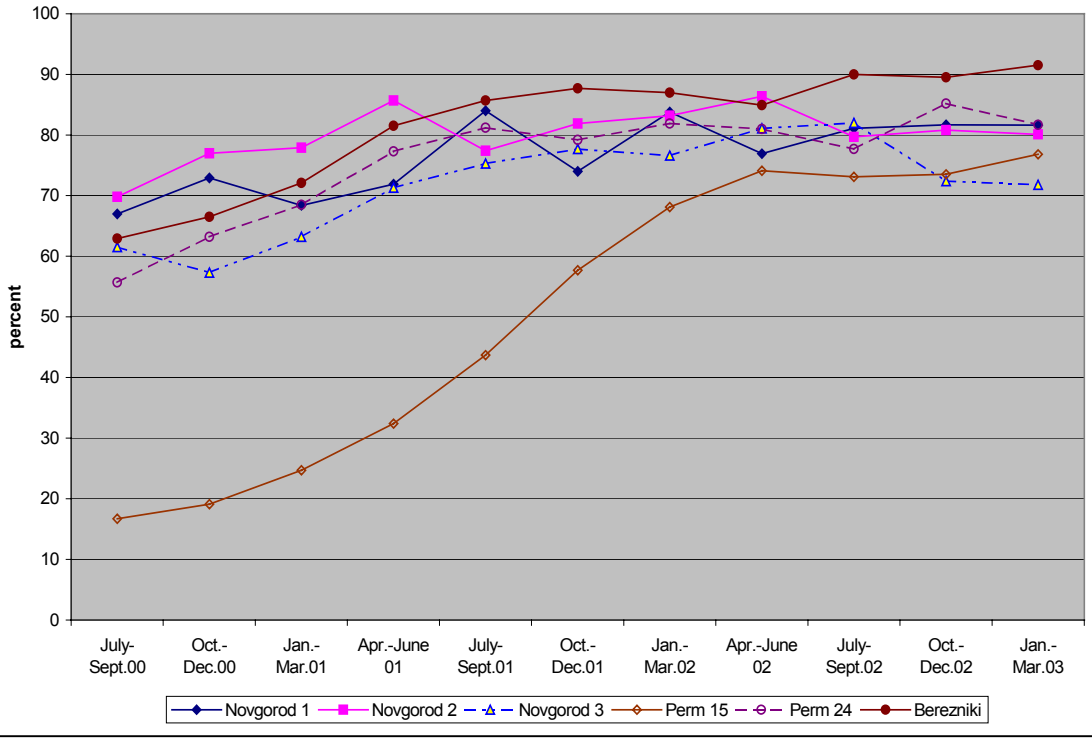
There is no evidence that a fully breastfed baby needs supplements of water, glucose or formula. Nor is there evidence to support giving additional fluids to breastfed babies to prevent or treat 'breast milk jaundice'. However, routine supplementation of breast milk

with other feeds has been demonstrated to result in high discontinuation rates for breastfeeding. A controlled trial has shown that women whose babies receive routine supplements are up to 5 times more likely to abandon breastfeeding in the first two weeks as women whose babies are not supplemented.[5]

Breastfeeding also has a contraceptive effect, when exclusive, when menses have not returned, and the infant is less than 6 months of age. The practice of exclusive breastfeeding can help women to space their pregnancies (preferred spacing for health reasons is at least 36 months between births), and reduce unintended pregnancies following a birth. This method of contraception, known as 'lactational amenorrhea method', or LAM, can also act as a 'bridge' to other family planning methods. In one study, more than 70% of mothers who used LAM in the postpartum period went on to use another contraceptive method, including more than 60% who had never before used contraception[6].

WHAT the data show:
All maternities report quite high levels of exclusive breastfeeding, as the data displayed in Figure 5 shows. In Maternity 2 in Novgorod, Maternity 21 in Perm, and the Berezniki maternity between 85 – 95% of newborns are reported by staff to be exclusively breastfed during their entire hospital stay, and these levels have remained high and fairly stable over the entire time span. The change in this indicator for Berezniki, following breastfeeding and FCMC training in the first quarter of the monitoring data collection, is especially dramatic. By the time that the first quarter reports from the monitoring system were made, all facilities except those in Berezniki had already received breastfeeding training.

Figure 6. Percent of 0-3 month olds exclusively breastfed (Children's Polyclinics)



Observations and interviews on site do not support the data from Maternity No. 1 in Novgorod (more than 70% of newborns exclusively breastfed for entire hospital stay), but rather suggest that some feeding of newborns still occurs in the central nursery.[7] The improvement noted in Maternity 9 in Perm during the first 6 quarters appears to be waning, and needs corrective action if the gains are not to be permanently lost.

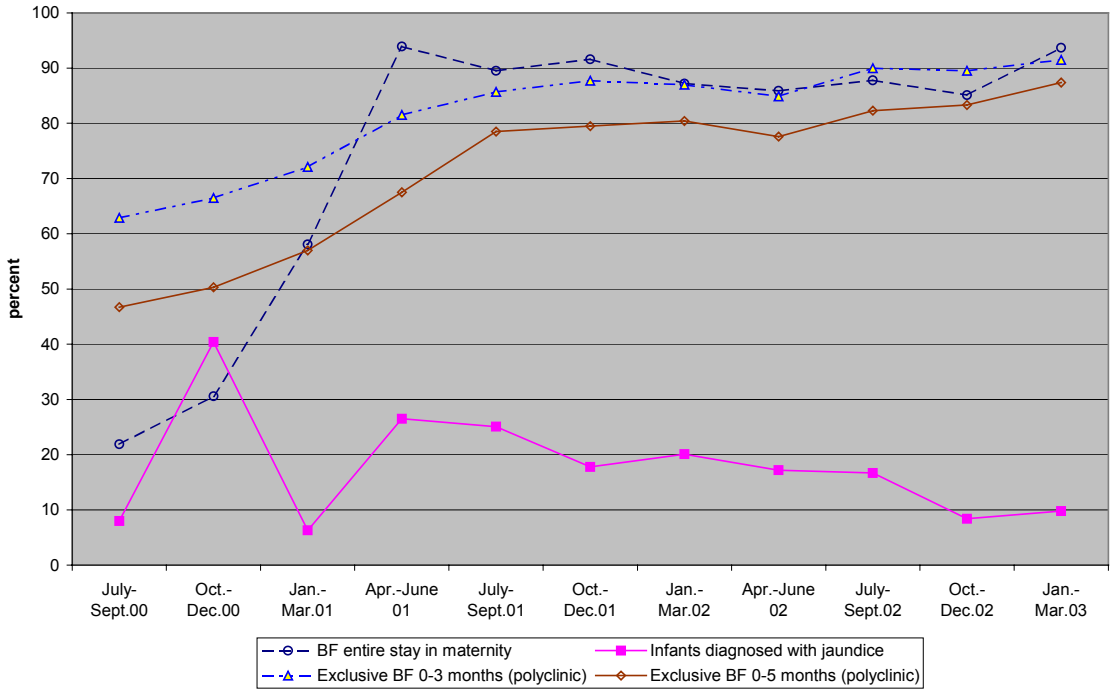
All WIN-participating maternities *except* Novgorod Maternity No. 1 have received WHO/UNICEF Baby-Friendly Hospital Initiative certification since the WIN Project began its work. Novgorod Maternity 2, Perm 9, Perm 21 and Berezniki have all been subjected to intense scrutiny: as part of the assessment for accreditation for BFHI status, interviews with providers and clients and direct observations are conducted. The findings of these BFHI certification procedures support the monitoring system's breastfeeding data for these facilities. These monitoring data, which are routinely reported by facility staff, should be compared with information collected directly from mothers on this indicator in the WIN facility-based surveys. We collected information directly from mothers in the baseline facility survey conducted in February 2000, prior to any training. That survey found that only about 25% of the 324 women interviewed postpartum reported that they were breastfeeding exclusively[8]. In the most recent, March 2003 facility survey, 88% of all postpartum women reported that their baby was exclusively breastfed during their hospital stay (averaged over all facilities), supporting the data here reported by facility staff.

Data shown in Tables 6 and 7 (see Annex) are reported by staff of children's polyclinics for two other indicators of exclusive breastfeeding: the percent of infants up to four (and up to 6 months of age) months of age at their last check-up who were exclusively breastfed. These reports continue to show a steady upward trend in exclusive breastfeeding for young infants up to four and six months. The data for 0-3 month olds is displayed in Figure 6.

Polyclinic 15 in Perm, which still reports less than half of children under 4 months exclusively breastfed, has made tremendous progress since the 1st quarter report, when less than 20% were exclusively breastfed. Since September 2000, the proportion of exclusively breastfed infants seen at this facility has nearly tripled. The proportion of children exclusively breastfed up to 6 months of age has increased steadily in all sites, and now varies from a low of 65% of under-6 month olds to more than 80% across these participating polyclinics (see Table 7, Annex).

The data for the single maternity hospital in Berezniki and the children's polyclinic associated with it (Figure 7) illustrate how the breastfeeding indicators are changing. Exclusive breastfeeding for the entire duration of stay in the maternity improved dramatically over the first five quarters, and has been sustained since then. The data from Berezniki maternity reflect the rapid progress in practice of exclusive breastfeeding that occurred after training – starting with a baseline measure of only 22% of mothers exclusively breastfeeding, and reaching almost 90% by quarter five. Coincidentally, rates of diagnosed jaundice were fairly low when exclusive breastfeeding was at its lowest (and hence, full bottle feeding prevalent). Jaundice rates rose as breastfeeding practices became mixed, with some children getting only partial breastfeeding, and have stabilized at a low level as full, exclusive breastfeeding on demand has become the norm in the maternity.

Figure 7. Exclusive breastfeeding rates from maternity and children's polyclinic in Berezniki



D. Indicators of Contraceptive Use and Abortion

Abortion clients acceptance of family planning method

WHAT this indicator measures:

- the proportion of abortion clients who receive a method of family planning on the day of the abortion

WHY is this indicator important?

The project is working to improve provision of information and counseling to women on appropriate post-abortion and postpartum contraceptive methods. By reducing reliance on abortion to control fertility, the project is working to prevent adverse consequences that can follow an abortion, reduce the costs associated with hospitalization, and promote use of more effective methods of pregnancy prevention.

The evidence:

Use of effective family planning methods can reduce the number of unintended pregnancies, and help prevent abortions. A study in the US showed that an increase in expenditure of US$1 per capita in public funding for family planning services was associated with a reduction of 1 abortion per 1000 women.[9] Other studies have shown that over time, as use of effective family planning methods increases, abortion rates decline. However, the evidence indicates that the process is a slow one, taking between 20 and 30 years to observe such an effect on abortion rates[10].

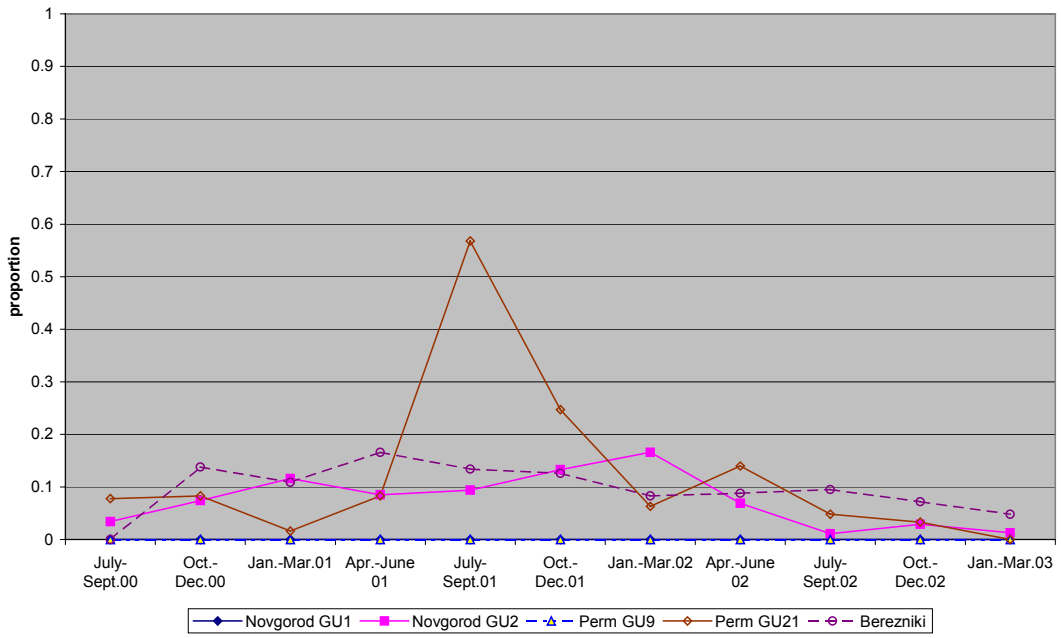
Studies also indicate that women who have abortions are at high risk of another unplanned pregnancy, and most of these women were using a less effective method, or

not using any method of family planning when they became pregnant. In the WIN baseline facility survey, almost 30% of abortion clients were not using any method of contraception, and most of the remainder were using less effective methods when they conceived.[11]

Complications of abortion place a burden on women's health, and an added burden on the health care system. These complications can be serious, leading to death or disability, even where abortion is legal and most abortions are performed in health facilities. In recent surveys in Romania and Moldova, between 7 and 11% of women reported complications following the procedure. In 1995, approximately 25% of maternal deaths in Russia were attributed to abortion-related causes[12], and this was also true for maternal deaths recorded in 2000[13]. In the WIN Project's baseline household survey, between 15 and 19% of women in the three cities where the WIN Project is working reported experiencing complications following an abortion.[14]

WHAT the data show:
Prior to the WIN Project interventions, gynecology units did not routinely offer contraceptive methods to clients immediately following an abortion. The first Comprehensive Post-Abortion Care (PAC) training course took place in Perm in April 2001. The data in Table 8 (Annex) and displayed in Figure 8 show the increase from a zero or near-zero baseline in the number of abortion clients in some of the WIN-participating gynecology units who receive a family planning method prior to discharge

Figure 8. Proportion of abortion clients receiving a contraceptive method at the time of abortion



from the facility. The largest increase – in the gynecology unit of Perm 21 – occurred during recruitment into the PAC operations research study, which offered free contraceptive commodities of the client's choice, in addition to contraceptive counseling. In the other sites, few contraceptives are available for distribution at the time of the abortion and the vast majority of abortion clients are referred to women's consultation

centers for family planning counseling at the time of post-abortion check-up[15]. Thus, we will need to rely on our survey data to provide more detailed information on changes in post-abortion contraceptive practice among clients.

Reports for this indicator from Novgorod GU1 and Perm GU 9 indicate that no clients were provided with family planning methods immediately following an abortion. This finding also suggests that hospital policy in these facilities[16] has not yet changed to allow provision of IUDs at the time of an abortion, which is one of the methods most likely to be available.

Abortions to live births

WHAT this indicator measures:

- the numbers of abortions that occur per live birth

We will look closely at both components of this indicator since a ratio reflects changes in the numerator (number of abortions) AND the denominator (number of live births). We decided to examine the reports of abortions and live births for each entire city where the project is working, and these data are shown in Table 9 (Annex) and Figures 9, 10 and 11. The figures show total live births, abortions, and the abortion ratios by quarter for each city.

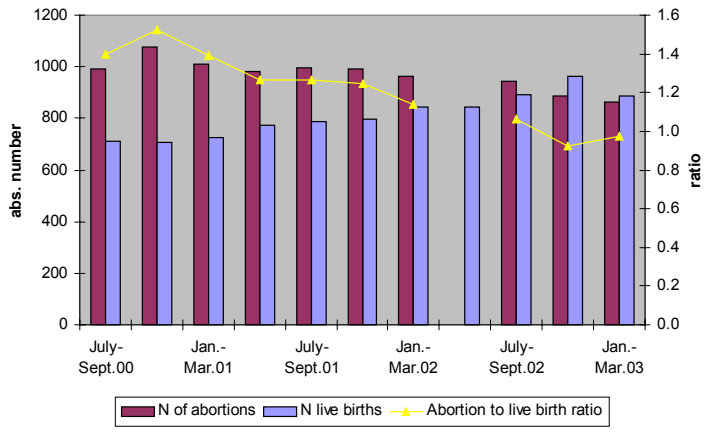
WHY is this indicator important?

A reduction in the indicator may signify either that fewer women are seeking abortion or that the number of live births is increasing.

WHAT the data show:

In all three cities, the number of abortions has declined from the first quarter reports. In Perm, the number of abortions has moved rather erratically from quarter to quarter, while in Novgorod and Berezniki, the number of abortions has remaining fairly constant for the last three quarters.

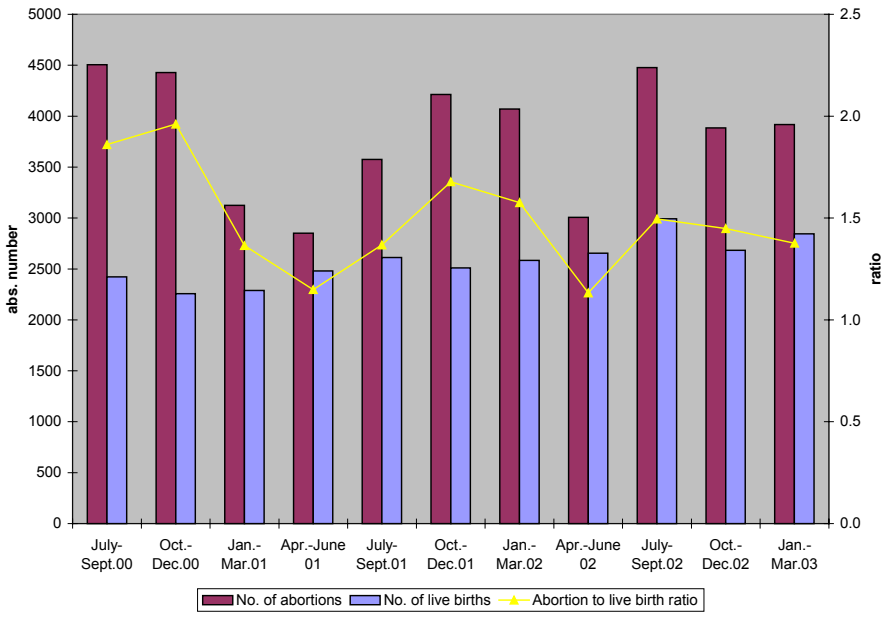
Figure 9. Abortions and live births in V.Novgorod



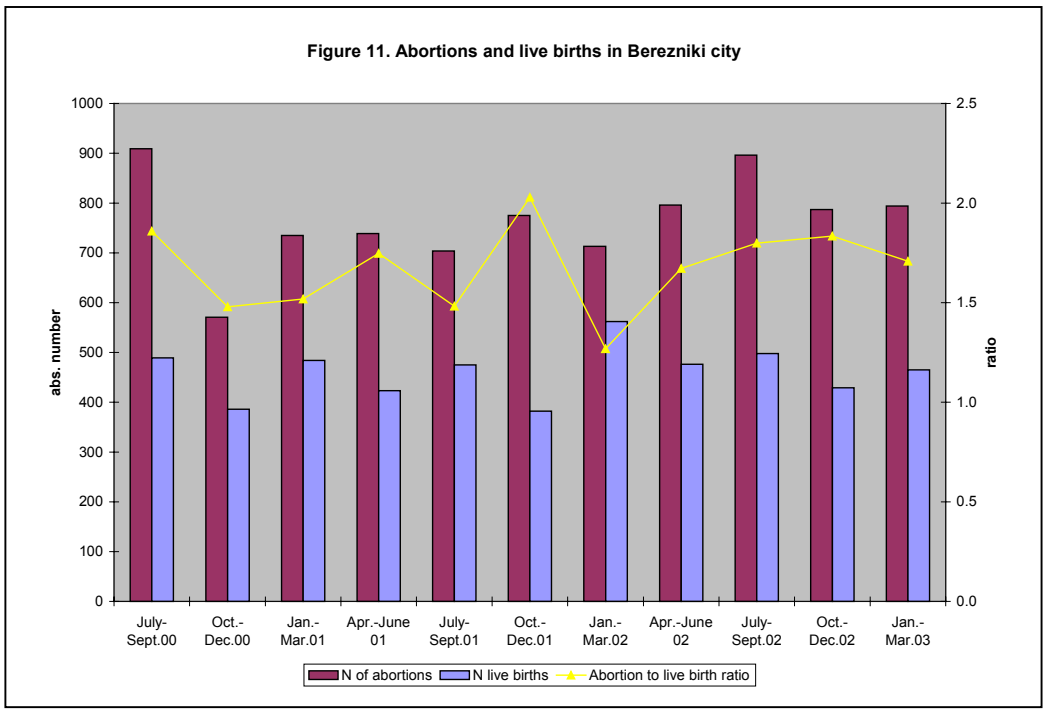
Abortion ratios reflect not just abortions but also fluctuations in numbers of live births. As shown in Figure 9, the number of births in Novgorod has risen very slightly in recent quarters, while abortions were relatively constant over quarters 4-6, dropping gradually in the last three quarters (data for quarter 8 is not available). This has therefore slightly exaggerated the fall in the ratio: if live births had remained constant, the ratio would not show such a steep drop.

For Perm (Figure 10), the number of births appears to have followed a gradually increasing trend. The abortion: live birth ratio reflects fairly well the reduction in abortions in the first 4 quarters as well as the rise in quarters 5 and 6. What should be clear from this figure is the rather erratic nature of this indicator and its components over the span of only three months. The number of abortions was on the increase again in quarter 9, falling again in quarters 10 and 11, suggesting that there is an apparent seasonal affect on abortions, at their lowest in the late winter and early spring quarters. Overall quarters, however, the ratio has decreased from the level seen in quarters 1 and 2, the latter half of 2000.

Figure 10. Abortions and live births in Perm



In Berezniki (Figure 11 below), the drop in births is particularly marked for the 6th quarter. In that quarter abortions rose only slightly, but the combination of these two factors yielded a sharp increase in the abortion ratio. These fluctuations in total births in recent quarters contributes to the rise and then fall in the abortion ratio – if births had remained constant, then the abortion ratio would also have remained fairly constant. The fluctuations in numbers of live births are more noticeable in Berezniki than in the other cities, because it is a smaller city and fewer births occur there. In quarters 8, 9 and 10 the ratio slowly increased, but appears to be falling in the final quarter.



E. Summary

In sum, indicators of family-centered maternity care (FCMC) and breastfeeding reported by facility staff show major improvements since the institution of the routine reporting system in June 2000. These data indicate that the FCMC training and support has been effective in changing facility policies and provider practices. However, facility staff need to re-double efforts if these gains are to be sustained, as the monitoring data suggest evidence of lagging efforts in some areas.

Family planning indicators have been less useful because there was not a well-established mechanism within facilities for tracking clients coming for the first time (or returning for) family planning services. Information on client acceptance of FP methods at the time of a visit is not well-reported, in part due to the lack of commodities available for distribution at most facilities[17]. From the reports originating at Perm Gynecology Unit 21, where contraceptive commodities are provided free, as part of an operations research study, it appears that many women are willing to accept a contraceptive method immediately following abortion[18]. Even this trend seems to be short-lived, or the data being reported to WIN are faulty.

Trends in other key indicators for the WIN project are, for technical reasons, difficult to monitor in a meaningful way over a short period of time or are less amenable to rapid change (abortion ratios, infant and perinatal mortality rates).

Annex

Table 1. Percent of maternity clients who had family support during labor/delivery

	Novgorod 1	Novgorod 2	Perm 9	Perm 21	Berezniki
July-Sept.00	8.9	19.8	0.6	1.9	0.6
Oct.-Dec.00	14.4	24.2	4.7	3.7	0.0
Jan.-Mar.01	22.3	31.1	7.2	6.7	0.4
Apr.-June 01	30.0	47.6	10.3	13.0	3.8
July-Sept.01	27.5	43.6	4.8	25.0	27.9
Oct.-Dec.01	46.2	51.0	7.5	37.0	22.8
Jan.-Mar.02	45.7	41.1	8.2	37.5	33.6
Apr.-June 02	39.5	51.5	13.8	40.6	77.1
July-Sept.02	37.4	42.9	12.0	43.5	76.7
Oct.-Dec.02	32.4	35.0	26.0	47.5	53.4
Jan.-Mar.03	36.8	44.9	16.8	59.8	41.8

Table 2. Percent of women given pain medication during labor/delivery

	Novgorod 1	Novgorod 2	Perm 9	Perm 21	Berezniki
July-Sept.00	83.0	14.0	84.9	37.6	100.0
Oct.-Dec.00	79.0	6.0	92.3	8.6	100.0
Jan.-Mar.01	74.0	7.0	80.0	10.1	100.0
Apr.-June 01	86.2	10.0	52.2	12.6	6.4
July-Sept.01	64.4	4.9	32.4	12.2	24.8
Oct.-Dec.01	53.1	5.9	25.1	13.6	17.8
Jan.-Mar.02	55.2	9.1	16.3	10.2	10.4
Apr.-June 02	76.2	9.1	19.8	12.4	2.6
July-Sept.02	59.9	4.5	13.6	20.8	2.8
Oct.-Dec.02	57.8	11.0	11.6	19.3	2.4
Jan.-Mar.03	47.4	7.1	10.6	16.5	4.3

Table 3. Percent of women choosing rooming-in

	Novgorod 1	Novgorod 2	Perm 9	Perm 21	Berezniki
July-Sept.00	8.9	91.2	89.5	99.1	21.9
Oct.-Dec.00	38.0	97.5	90.0	82.6	35.2
Jan.-Mar.01	11.2	97.6	98.5	97.7	75.8
Apr.-June 01	14.8	98.9	90.9	96.0	97.6
July-Sept.01	13.6	97.4	98.9	99.0	98.7
Oct.-Dec.01	19.6	96.4	97.1	98.0	96.3
Jan.-Mar.02	17.5	94.7	97.3	99.2	99.3
Apr.-June 02	18.2	95.3	86.9	99.2	94.5
July-Sept.02	17.5	96.0	96.4	98.6	95.2
Oct.-Dec.02	19.4	96.6	91.8	98.8	95.6
Jan.-Mar.03	20.8	91.3	98.1	98.7	100.0

Table 4. Percent of newborns diagnosed with jaundice

	Novgorod 1	Novgorod 2	Perm 9	Perm 21	Berezniki
July-Sept.00	25.2	58.1	11.1	8.1	8.0
Oct.-Dec.00	3.7	28.3	6.1	3.9	40.4
Jan.-Mar.01	4.2	19.7	7.5	6.9	6.3
Apr.-June 01	3.0	8.5	8.5	4.6	26.5
July-Sept.01	2.5	3.4	7.8	7.3	25.1
Oct.-Dec.01	2.3	3.4	11.6	2.7	17.8
Jan.-Mar.02	2.8	4.1	14.6	7.3	20.1
Apr.-June 02	3.1	3.7	17.1	8.5	17.2
July-Sept.02	4.1	6.9	11.6	6.4	16.7
Oct.-Dec.02	3.6	6.7	13.2	7.9	8.4
Jan.-Mar.03	4.6	1.9	9.4	6.6	9.8

Table 5. Percent of newborns exclusively breastfed throughout hospital stay

	Novgorod 1	Novgorod 2	Perm 9	Perm 21	Berezniki
July-Sept.00	83.7	79.3	72.8	93.6	21.9
Oct.-Dec.00	85.3	87.8	72.7	96.6	30.6
Jan.-Mar.01	78.4	91.1	77.6	88.4	58.1
Apr.-June 01	79.9	91.5	81.1	95.6	93.9
July-Sept.01	69.9	89.1	85.1	95.0	89.5
Oct.-Dec.01	74.9	80.2	95.2	96.5	91.6
Jan.-Mar.02	74.4	87.2	70.8	99.1	87.2
Apr.-June 02	72.5	87.1	79.2	96.6	85.9
July-Sept.02	71.0	87.1	78.5	93.6	87.8
Oct.-Dec.02	71.6	90.6	72.8	97.8	85.1
Jan.-Mar.03	76.4	82.1	73.8	94.5	93.7

Table 6. Percent of 0-3 month olds exclusively breastfed (Children's Polyclinics)

	Novgorod 1	Novgorod 2	Novgorod 3	Perm 15	Perm 24	Berezniki
July-Sept.00	67.0	69.8	61.5	16.7	55.7	62.9
Oct.-Dec.00	72.9	77.0	57.3	19.1	63.2	66.5
Jan.-Mar.01	68.4	77.9	63.2	24.7	68.5	72.1
Apr.-June 01	71.9	85.7	71.3	32.4	77.3	81.5
July-Sept.01	84.0	77.4	75.3	43.7	81.2	85.7
Oct.-Dec.01	74.0	81.9	77.7	57.7	79.2	87.7
Jan.-Mar.02	83.8	83.2	76.6	68.1	81.9	87.0
Apr.-June 02	76.9	86.4	81.1	74.1	81.0	84.9
July-Sept.02	81.1	79.7	82.0	73.1	77.7	90.0
Oct.-Dec.02	81.7	80.8	72.4	73.5	85.2	89.5
Jan.-Mar.03	81.6	80.1	71.8	76.8	81.7	91.5

Table 7. Percent of 0-5 month olds exclusively breastfed (Children's Polyclinics)

	Novgorod 1	Novgorod 2	Novgorod 3	Perm 15	Perm 24	Berezniki
July-Sept.00	57.9	58.6	47.5	11.7	44.1	46.7
Oct.-Dec.00	61.2	63.7	49.3	12.1	54.5	50.3
Jan.-Mar.01	59.7	68.0	49.5	16.3	56.5	57.0
Apr.-June 01	63.1	73.9	55.9	21.9	64.5	67.5
July-Sept.01	72.7	73.1	58.7	30.6	69.5	78.5
Oct.-Dec.01	70.7	73.6	61.7	44.4	69.7	79.5
Jan.-Mar.02	73.0	74.4	66.8	58.3	74.2	80.4
Apr.-June 02	74.5	78.8	66.6	62.8	72.5	77.6
July-Sept.02	76.2	72.4	69.4	67.6	71.6	82.3
Oct.-Dec.02	75.3	71.0	65.5	66.3	78.0	83.3
Jan.-Mar.03	74.7	74.2	69.9	66.6	76.4	87.4

Table 8. Proportion of abortion clients accepting family planning method following an abortion at participating gynecological units

	Novgorod GU1	Novgorod GU2	Perm GU9	Perm GU21	Berezniki
July-Sept.00	0	0.034	0	0.078	0.0
Oct.-Dec.00	0	0.074	0	0.083	0.138
Jan.-Mar.01	0	0.116	0	0.016	0.109
Apr.-June 01	0	0.085	0	0.083	0.166
July-Sept.01	0	0.094	0	0.568	0.134
Oct.-Dec.01	0	0.133	0	0.247	0.126
Jan.-Mar.02	0	0.166	0	0.063	0.083
Apr.-June 02	0	0.069	0	0.140	0.088
July-Sept.02	0	0.011	0	0.048	0.095
Oct.-Dec.02	0	0.029	0	0.033	0.072
Jan.-Mar.03	0	0.013	0	0	0.048

Table 9. Abortions and live births by city∗

QUARTER	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
Novgorod											
• abortions	991	1075	1011	980	996	993	961	N/A	945	885	865
• live births	710	706	727	775	789	797	844	846	892	961	886
Abortion ratio	1.4	1.5	1.4	1.3	1.3	1.2	1.1	-	1.1	0.9	1.0
Perm											
• abortions	4506	4428	3124	2850	3574	4213	4069	3008	4476	3885	3918
• live births	2422	2258	2289	2481	2612	2511	2583	2655	2992	2683	2846
Abortion ratio	1.9	2.0	1.4	1.2	1.4	1.7	1.6	1.1	1.5	1.4	1.4
Berezniki											
• abortions	909	571	735	739	704	775	713	796	896	787	794
• live births	489	386	484	423	475	382	562	476	498	429	465
Abortion ratio	1.9	1.5	1.5	1.7	1.5	2.0	1.3	1.7	1.8	1.8	1.7

∗ All live births reported by city authorities Perm and live births reported by all maternity hospitals in V.Novgorod and Berezniki. All abortions reported by city authorities in all three cities.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A. ENDNOTES

[1] Unless otherwise stated, evidence cited from clinical trials is taken from the publication: Enkin, Keirse, Neilson, et al, *A guide to effective care in pregnancy and childbirth*, 3rd Edition, Oxford: Oxford University Press, 2000, based on the systematic reviews of evidence developed for the Cochrane Library.
[2] Varney, H. (1980) *Nurse-midwifery*, Second Edition, Boston: Blackwell Editions.
[3] Gartner, Lawrence M. and Kwang-sun Lee (1999) "Jaundice in the Breastfed Infant", *Clinics in Perinatology*, 26(2): 431-443.
[4] WHO *Expert Consultation on the Optimal Duration of Exclusive Breastfeeding: Conclusion and Recommendations,* Geneva: 2001.
[5] Enkin, et al, op cit, p. 447.
[6] Peterson, AE (2000) *et al*, Multi-center study of the lactational amenorrhea method (LAM) III: effectiveness, duration, and satisfaction with reduced client-provider interaction, C*ontraception*, 62: 221-230.
[7] Personal Communication and Trip Report, Pauline Glatleider, WIN consultant midwife and trainer. In Maternity 1 in Novgorod, 'rooming-in' is not common. Newborns are bottle-fed in the nursery, and the feedings are not recorded in the charts.
[8] David, PH, (2001) op cit, p. 58.
[9] Population Reference Bureau (1996) *Family Planning Saves Lives*, Washington, DC, p.12.
[10] Population Reference Bureau, op cit, p. 12, and Rahman, M., Davanzo, J., and Razzaque (2001) Do better family planning services reduce abortion in Bangladesh?, *The Lancet,* Vol. 358, 9287.
[11] David, PH (2001), op cit., p. 33.
[12] US Department of Health and Human Services and Centers for Disease Control and Prevention (1999) *Vital and Health Statistics*: Maternal and Child Health Statistics: Russian Federation and United States, Selected Years 1985-95, p. 17.
[13] Ministry of Health, Russian Federation: *Maternal and Child Health Care Services in 2002*.
[14] David, PH, Bodrova, V., Avdeev, A., Troitskaia, I, and Boulay, M (2000), *Women and Infant Health Project Household Survey 2000: Report of Main Findings,* Boston and Moscow, December, 2000.
[15] The project polled facilities in mid-2001 to obtain information on the current stock of contraceptives, to supplement FMS reports with information about this potential constraint to increased provision of contraceptives. We will also obtain reports from our post-intervention facility survey to assess changes in contraceptive availability in participating facilities. Facilities in Veliky Novgorod report that no contraceptives are provided at participating facilities. The Family Planning Centre in Berezniki reported stocks of 492 cycles of combined OCs, 218 IUDs, and 153 injectables, the latter having been out of stock at least once in the preceding 6 months. The Oblast Family Planning Center in Perm reported "miserably small" stocks of Combined OCs and IUDs, but said that this small supply was provided only for groups considered socially disadvantaged (teenagers, high parity women and unemployed women).

The information provided by Berezniki Maternity is that both combined and progesterone-only OCs were currently out of stock. 50 IUDs were currently in stock, but a stock-out had occurred in the last 6 months. Only 200 condoms were in stock, but no stock-out of condoms had occurred in the last 6 months. The report from other facilities is similar, with less than 100 IUDs and 10 units of spermicide in stock in Maternity 9 in Perm; Maternity #21 in Perm had 40 combined OC units in stock and 30 IUDs. Neither of the maternities in Perm had any condoms in stock at the time of inventory and both reported previous stock-outs of condoms in the preceding 6 months. No other contraceptives were provided (or available) at WIN – participating facilities.
[16] As a result of concerns about high rates of infection among post-abortion IUD users, a Ministry of Health guideline was adopted that bars physicians from providing IUDs immediately post-abortion. After WIN Project training on safe IUD insertion technique, some facilities have started to provide IUDs at the time of the abortion procedure.
[17] See 'WIN Project Indicator Status Report', August, 2001, p. 4.
[18] Inna Sacci, Engender Health, personal communication, and project reports.